

### **REMARKS**

Claims 1-13 and 35-50 are now pending in the application. Claims 1-3, 5, 35-37, 39-45, 48, and 50 are amended by this amendment. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

### **APPLICANTS' INITIATED INTERVIEW**

Applicants thank the Examiner for the interview granted with Applicants' representative on March 6, 2007. During the interview the independent claims and the outstanding rejections, including the art cited therein, were discussed. During the interview no agreement was reached regarding allowability of the claims.

Applicants' representative, however, did argue that the cited art did not teach various features as presently claimed, including: a constraining ring and a cylindrical equator, a complete cylindrical equator, and a cylindrical equator aligned or co-axial with a junction or junction taper (e.g. female taper 26).

Applicants' representative requested and the Examiner agreed to contact Applicants' representative regarding the status of the claims once the Examiner reviewed and fully considered Applicants arguments and amendments included herein.

### **SPECIFICATION**

The specification stands objected to as failing to provide proper antecedent basis for the claimed subject matter. This objection is traversed.

The term "bore" has been deleted from Claims 35 and 39. Therefore, this rejection is rendered moot and Applicants request that the Examiner withdraw the objection to the specification.

**REJECTION UNDER 35 U.S.C. § 102 AND 103**

Claims 35-44 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Germany (DE 9312150) (herein German reference). Claims 1-13 and 35-50 stand rejected under 35 U.S.C. § 102(b) as being anticipated over Noiles (4,978,356) in view of the German reference. These rejections are respectfully traversed.

Applicants respectfully request the Examiner reconsider Applicants' previous arguments regarding the German reference and Noiles.

As previously presented, the German reference is directed to a first member that is operable to be positioned within a depression 5 of a second member. The ball member (not numbered) includes a tapered collar 16. As illustrated in Fig. 1 of the German reference, the tapered collar 16 is not coaxial with a ground surface 18 of the ball member. Moreover, and in part because the tapered collar and ground surface are not coaxial, the ground surface 18 does not define a cylindrical equator of the ball member. In addition, the area 13, defined within the ball member, is also not substantially coaxial with the ground surface 18 of the ball member.

Contrary to the German reference, independent Claim 35 recites "a second prosthesis member defining a junction portion centered on and formed around a first axis . . . . [and] at least one cylindrical portion having a central axis the same as the first axis" and independent Claim 39 recites "a femoral head prosthesis member defining a

tapered junction centered on and formed around a first axis, wherein said femoral head prosthesis member has a first diameter substantially equal to said internal concave diameter and has a cylindrical equator that defines a complete equator of said femoral head prosthesis member having a second diameter about the first axis less than said first diameter". Applicants submit that the amendments to independent Claims 35 and 39 do not change the scope of the claims as "about" and "around" are substantially interchangeable. See Attachment A; American Heritage College Dictionary, 3d Ed., Houghton Mifflin Company, 1993, page 4. Further, Applicants submit that "centered on and formed around a first axis" is supported by the application as filed, and is clearly not taught or suggested by the German reference.

As discussed above and illustrated in Fig. 1 of the German reference, the device of the German reference clearly does not include a junction and its structural position as recited in independent Claims 35 and 39. Independent Claim 39 also recites, "a cylindrical equator that defines a complete equator", which is not disclosed in the German reference. As discussed with the Examiner during the interview, the German reference illustrates that the ground surface 18 must intersect or cooperate with the tapered collar 16 and, as such, is not a cylindrical equator. Therefore, Applicants submit that independent Claims 35 and 39, and each of the claims that depend directly or indirectly therefrom, are in condition for allowance.

Applicants further submit that there is no teaching or suggestion in the German reference and Noiles to combine the German reference and Noiles. As previously argued, the German reference (according to the machine translation previously submitted by Applicants) describes that a locking ring to prevent luxation is undesirable

and not needed when the device of the German reference is used. The German reference therefore disparages a locking ring to prevent luxation.

Even assuming that the German reference is discussing a flange, similar to a flange 5 as illustrated in U.S. Pat. No. 6,093,208 to Tian, Applicants respectfully submit that the metal reinforcing band of Noiles performs a similar resistance to luxation as the flange 5 of Tian. Thus, the flange 5 of Tian and the reinforcing band 120 of Noiles appear, Applicants respectfully submit, to be identical with respect to the German reference. Noiles describes that a metal reinforcing band 120 can produce a constrained joint that is "able to withstand higher dislocation forces" than devices without such a band. See Noiles column 14, lines 21-24. Tian also describes that a flange can be coupled to retain the artificial head. See Tian column 2, lines 32-35. In light of this, Applicants submit that the flange 5 of Tian and the reinforcing band 120 of Noiles both provide restriction against luxation. In light of this, Applicants respectfully submit that both are within the scope of the types of devices disparaged by the German reference. Therefore, Applicants respectfully submit that the German reference teaches away from the combination of the German reference with either of Noiles or Tian.

Contrary to the cited art, independent Claim 1 recites "said ball portion includes a cylindrical equator extending around a complete circumference of said ball portion and having an equator diameter similar to said passage width and smaller than said ball diameter". Applicants respectfully submit that the German reference, either alone or in combination, does not teach or fairly suggest cylindrical equator as claimed. The complete cylindrical equator extends around the ball portion without the interruption of another portion. Thus, the cylindrical equator alone defines the equator diameter.

Further, independent Claim 1 recites "a constraining ring cooperating with said opening". As discussed above, the cited art does not teach or fairly suggest each of the elements of independent Claim 1, and Applicants submit that the art teaches away from a combination of a cylindrical equator and a constraining ring.

Applicants submit that claims that depend directly or indirectly from independent Claim 1 also include a patentable subject matter. For example, dependent Claim 2 recites "a cup having an interior surface and an exterior surface and a fixation member extending from exterior surface adapted to be implanted into a first boney structure". Applicants respectfully submit that the cited art, either alone or in combination, does not teach or fairly suggest a fixation member extending from an exterior surface. In addition, dependent Claim 3 recites "wherein said cylindrical equator of said ball portion defines a cylinder diameter to allow said ball portion to be inserted into said internal concave portion through the opening when a central axis of said cylindrical equator is aligned with the opening." Again, Applicants submit that the cited art, including the German reference, do not teach or fairly suggest the configuration recited in dependent Claim 3. As discussed above, the device of the German reference appears to require a chamfered collar 16 separate from a portion 18, which is contrary to independent Claim 1.

Independent Claims 35 and 39, Applicants submit, are neither taught nor fairly suggested by the German reference, as discussed above. In addition, Applicants submit that Noiles does not teach or fairly suggest, either alone or in combination with the other cited art, each of the elements in independent Claims 35 and 39.

Independent Claim 45 recites "a constraining ring cooperating with said opening to reinforce and maintain the passage dimension; a ball portion sized to fit and replace a portion of a femoral head having a ball diameter substantially equal to said internal concave diameter; and wherein said ball portion includes a cylindrical equator having a diameter similar to said passage dimension". As discussed above, Applicants submit that the cited art, either alone or in combination, does not teach or fairly suggest the constraining ring and a ball portion that includes an equator having a diameter similar to the passage dimension of the liner. Applicants submit that the cited art also teaches away from a system that includes a constraining ring and the cylindrical equator. Applicants respectfully submit that such a combination appears to be based on improper hindsight reasoning. Not only does the cited art teach away from such a combination, only Applicants present application suggest such a device.

Independent Claim 48 recites "a bearing member . . . a constraining ring member interconnected with the bearing member near an entrance to the internal concave portion to maintain an entrance dimension; and a second member sized to fit and replace a portion of a femoral head having a first diameter substantially equal to said internal concave diameter and defining a cylindrical equator defined around a first axis and extending completely around said second member; wherein the cylindrical equator has a second diameter less than said first diameter; wherein said second member defines a junction formed around the first axis". As discussed above, the cited art alone or in combination, do not teach or fairly suggest providing a constraining ring, a cylindrical equator formed around a first axis, and a junction formed around the first axis as recited in independent Claim 48. As discussed above, none of the cited art teaches

each of these recitations in combination. Further, as also discussed above, Applicants submit that the cited art teaches away from a combination of these recitations.

Therefore, Applicants respectfully submit that each of the presently pending claims is in condition for allowance.

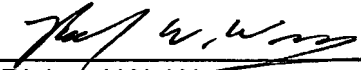
If each of the presently pending claims are not indicated as allowable and a rejection is maintained on the German reference, Applicants respectfully request a certified translation of the German reference from the U.S. Patent and Trademark Office prior to any further office actions. Applicants also respectfully request, if a further office action includes a rejection based on the German reference, an identification in the translation of each of the rejected claim elements.

## CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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# **ATTACHMENT A**

# THE AMERICAN HERITAGE<sup>®</sup> COLLEGE DICTIONARY

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THIRD EDITION



HOUGHTON MIFFLIN COMPANY

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